



HOUSEHOLD HAZARDOUS WASTES COLLECTION PROGRAM

Implementation Guide



Environment
Ontario

Jim Bradley
Minister

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Guide to implementing
household hazardous waste
collection programs.

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Guide To Implementing Household Hazardous Waste Collection Programs

FEBRUARY 1986



**Ministry
of the
Environment**

Hon. Jim Bradley
Minister

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Executive Summary

A wide range of consumer products can pose potential hazards to the environment and to public health if improperly disposed. These include pesticides and herbicides, paints and varnishes, solvents and cleaners, and other materials. Increasingly, special programs are being implemented in North America to ensure the safe disposal of these household hazardous wastes (HHW).

Based on North American experience to date, these Guidelines provide instructions for the management of HHW in Ontario. The recommended management approach is through depot systems for the special collection of HHW. Collection depots must be conveniently located to attract participation in the program and must be properly designed to ensure that HHW is handled safely and efficiently. Details of program planning, publicity, financing and implementation are provided in a step-by-step format.

On-going public education regarding HHW is required. This can be accomplished through a communications program; examples of communications pieces are provided in Appendix form. In addition, consideration should be given to establishing permanent HHW collection facilities and a community waste exchange.

1. Introduction

This manual was prepared under Ontario Ministry of the Environment funding for use by municipalities, community groups and others who are interested in implementing programs to provide for the safe collection and disposal of household hazardous waste (HHW).

It is intended that the manual will increase awareness of the HHW problem and stimulate and facilitate HHW collections throughout Ontario. The manual outlines the nature of HHW and the problems it poses. The emphasis of the manual is to provide the thorough "step-by-step" information needed to organize and sponsor a community HHW collection program.

1.1 What Are Household Hazardous Wastes?

Hazardous wastes are chemical and other wastes which require special treatment prior to disposal. Traditionally, public and municipal attention has focused on hazardous wastes from industrial generators. However, the public also generates hazardous wastes. Household cleaners, solvents, paints, furniture polish, insecticides, herbicides etc. are among the lengthy list of consumer products which contain chemicals potentially hazardous both to public health and the environment. In addition, past experience has shown that many households contain acutely hazardous wastes such as strychnine, DDT, and cyanide.

Table 1 lists some of the household products which should be handled and/or disposed of with caution. Even though the need for special precautions in managing HHW may not be immediately apparent, the collective impact of HHW generated by a community can be significant. Many household products are dangerous because they are flammable, toxic, corrosive, reactive or explosive. Inappropriate disposal of HHW could cause public health and environmental problems. For example:

- Pouring HHW down the drain may corrode plumbing, release toxic fumes, poison septic tanks, destroy sewage works organisms and contaminate surface water and ground water.

- Putting HHW out for garbage collection may result in injury to sanitation crews, and contaminate water supplies.

- Direct disposal in the ground or pouring HHW on the surface may contaminate the soil and local surface water and ground water.

1.2 How To Reduce Household Hazardous Wastes

Municipalities can encourage residents to reduce the amount of hazardous wastes they generate.

A possible first step is to encourage the public to switch to less toxic or non-toxic substitute products to reduce the amount of HHW generated. Manufacturers may respond to increased public awareness by offering effective, non-toxic products. A summary of alternative product suggestions is listed in Appendix G.

In cases where hazardous products cannot be avoided, consumers should be urged or advised to buy only as much as is needed to do the job. "Left-overs" could be exchanged with neighbours or carefully stored for future use in their original labelled containers for ease of identification and to avoid any mishaps from mixing chemicals.

1.3 What Are Household Hazardous Waste Collections?

HHW collections are designed to provide for the safe collection, transportation and disposal of wastes. Collections can be made as isolated events or on an on-going basis, the frequency of the latter being the choice of the municipality or organizing group. In many HHW collection programs, residents are asked to bring their HHW to a designated depot, where the material is classified, packed and shipped to a disposal facility. In other cases, a special door-to-door collection can be provided in addition to a central collection system.

In one U.S. program, residents were asked to pre-register several days ahead of the event which enabled organizers to anticipate the amount and types of materials to be collected.

In short, a HHW collection program allows a community to safely collect and dispose of hazardous wastes from houses, and reduce risk to the environment and public health.

Table 1
Examples Of Products Which Can Be Potentially
Hazardous If Disposed Of Improperly

Antifreeze	Motor Oil
Auto Batteries	Nail Polish
Degreasers	Oven Cleaner
Disinfectants	Paints
Drain Cleaner	Pesticides
Flea Powder	Septic Tank Cleaners
Floor Wax	Solvents
Herbicides	Wood Preservatives
Metal Polish	

2. Organizing A Household Hazardous Waste Collection Program

Organizing a household hazardous waste collection program requires time and commitment. A thorough understanding of what is involved followed by careful, professional planning is required to ensure success.

Table 2 lists ten key steps needed to organize a HHW collection program. Each step has specific objectives and tasks that must be undertaken. These are described in detail below.

Table 2
Ten Steps To Organizing A Successful Household Hazardous Waste Collection Program

Step 1	Organize a Committee to Plan/Implement the HHW Collection Program
Step 2	Define the HHW Collection Program Design
Step 3	Select a Collection Date (s)
Step 4	Select a Collection Site (s)
Step 5	Select A Hazardous Waste Management Company
Step 6	Prepare Budget/Obtain Funding
Step 7	Obtain Regulatory Approvals
Step 8	Publicize the HHW Collection Program
Step 9	The HHW Collection Day (s)
Step 10	Analyse Results

2.1 Step 1: "Organize A Committee To Plan/Implement The HHW Collection Program"

Objective: To Involve Community Interests In Implementing The Program

When a municipality has decided to hold a HHW collection program, a planning and implementation committee should be established to organize the HHW collection program. The

committee can develop more creative strategies and approaches than an individual due to its cross-sectional nature. Individual tasks can be assigned to each member to ensure that everyone has specific responsibilities and that all aspects of the program are adequately addressed.

In organizing a committee, some of the local interests which may be represented include: local politicians, public works or other municipal officials, chamber of commerce or other business organizations, environmental groups, media and service clubs.

2.2 Step 2: "Define The HHW Collection Program Design"

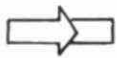
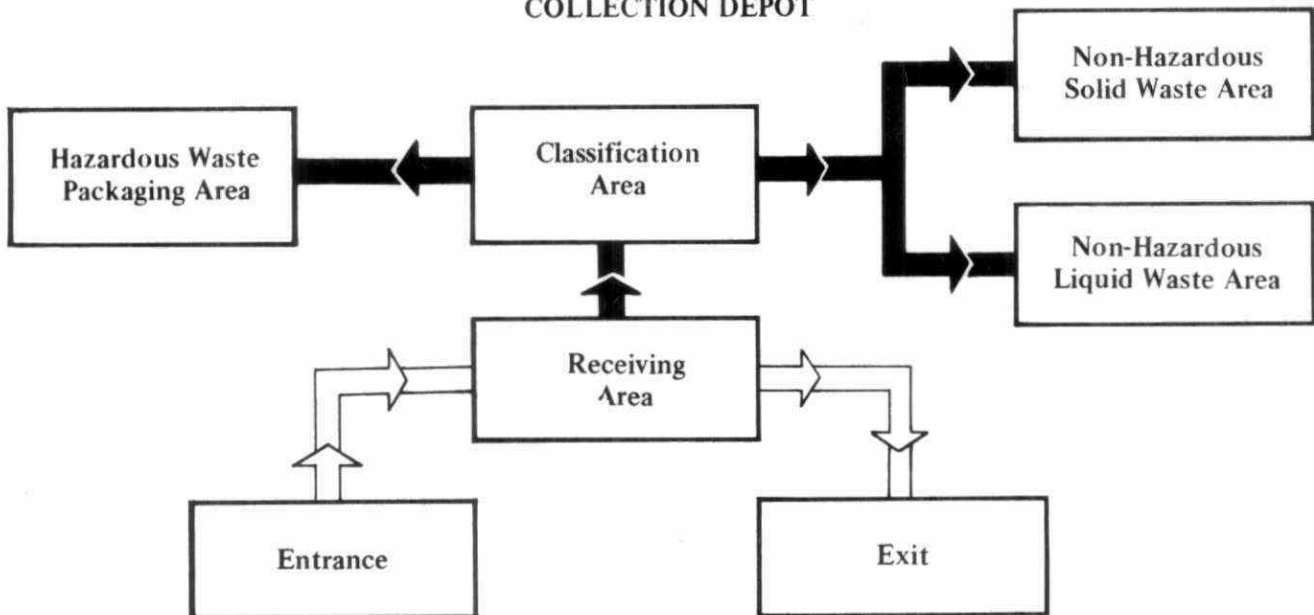
Objective: Determine A HHW Program Collection Method

One of the most important decisions to be taken is the type of HHW collection system to be employed. It is not necessary, at this point, to plan the details of waste handling – this can be done when selecting the waste management company, a topic discussed under Step 5. Two basic collection systems have been used in North America, central depots and door-to-door collections, although, a combination of both has been conducted.

Depot systems have been the most common and effective approach used to date. They require that residents bring their HHW to a designated site where the wastes are classified, segregated, packed and then shipped for final disposal. Supporting public education and publicity gives details on depot location, hours of operation and what specific wastes are eligible for collection.

Figure 1 illustrates a typical HHW collection depot. There are three key elements to the depot: an entry/exit area, an area where HHW is accepted from residents by qualified hazardous waste handlers and an area where the wastes are classified, sorted and packed. The latter are highly skilled tasks and should only be undertaken by properly trained personnel. Normally,

Figure 1
SCHEMATIC LAYOUT
OF A
HOUSEHOLD HAZARDOUS WASTE
COLLECTION DEPOT



Direction of Flow of Participants Through Depot



Direction of Flow of Wastes Following Receipt of Waste in Receiving Area

NOTE: This diagram is for schematic purposes only.

these tasks are contracted to a qualified hazardous waste management company. The public should not be allowed access to this area.

Some HHW collection programs have been operated using a door-to-door collection system. With these systems, residents are asked to telephone their requests for waste pick-up. These requests are scheduled into a collection route and the residents asked to be at home at a given time to make their HHW available. Usually, all pickups will be carried out on the same day, although in larger municipalities, different days may be necessary.

Experience has indicated that depot systems generally require less administration, attract higher levels of participation and are less expensive to operate than door-to-door pick-up systems. *It is therefore recommended that the HHW collections be based on depot systems.*

Even using depot systems, however, additional, limited door-to-door pickup services should be considered as an aid to residents who may be unable to deliver wastes to a depot for various reasons. For example, the elderly or infirm lacking convenient personal transport, may appreciate such a service.

2.3 Step 3: "Select A Collection Date"

Objective: To Ensure That The Day Chosen Will Receive A Good Response

Selecting the proper day is vital to the success of the program. Weekends, particularly Saturdays, are preferable. Holiday weekends should generally be avoided since many people may be out of town. Conversely, in vacation areas, holiday weekends may be the best times to hold a HHW collection since many vacationing cottagers can be expected. Spring and fall

are usually the best seasons to hold the collection since some municipalities arrange "Clean-up Days" and special refuse collections for oversized articles. If a municipality has such an event, it is a good idea to time the HHW collection for the same week so that people can clean out their HHW at the same time as other special refuse.

2.4 Step 4: "Select A Collection Site"

Objective: To Finalize The Depot Site(s)

Prime considerations in siting the depot are ease of public access and overall suitability. Shopping mall parking lots, fire halls, school yards and public works departments have all been used. Landfill sites have also been used as collection depots (not for disposal), but these are seldom in convenient locations. A public works yard or other municipally owned property is the best choice as it simplifies insurance and legal issues. A municipality's legal department should check to ensure the insurance policy will cover the collection.

Depot sites must be conveniently located. More than one depot site should be considered, particularly in medium and larger sized municipalities. Options include using a number of depot sites operating at the same time, or one depot operating during several successive Saturdays. Alternatively, a mobile depot is feasible. It can be open at one site during the morning, and move to a different location for the afternoon. This can be an effective approach to service rural as well as urban municipalities. It may also be possible for neighbouring municipalities to share a depot and split program costs.

2.5 Step 5: "Select A Hazardous Waste Management Company"

Objective: To Finalize Design and Handling Details of the HHW Collection

The handling and haulage of HHW are skilled tasks which can only be undertaken by qualified personnel. It is advisable to have the waste management company classify, segregate and pack all materials.

Program needs should be discussed with several hazardous waste management companies. The program, its objectives, the proposed basic collection system and the depot site(s) should be reviewed. The company's past experience in handling hazardous waste should be evaluated. Some questions in this area include:

How will the contractor charge for his service? He may wish to quote an all-inclusive price assuming he will have to handle, haul and dispose of a certain quantity of waste. If less waste is collected, this will result in an excessive bill on a per unit basis. A better arrangement is to obtain a quote itemizing labour and equipment costs and per unit transportation and disposal costs for the types of wastes to be handled. This way, charges are only made for the amounts actually collected.

How many people will be required to staff the depot? At least 2 handling company personnel will be required to staff the depot. If the contractor intends to use many staff, find out what the function of each person will be. Some tasks may be able to be allocated to municipal personnel to reduce costs.

What equipment will the contractor use? It is common for the transportation vehicle to be on-site all day, for which a charge is made. The truck is needed only to transport the collected waste, however, and need not be on-site until the depot closes and the waste has been packed. Also, find out what emergency equipment the contractor proposes to use; other equipment may be available from the municipality at reduced cost.

2.6 Step 6: "Prepare A Budget/Obtain Funding"

Objective: To Raise Financing For A HHW Collection Program

Once the details of promotion, collection service and disposal costs are available, a working budget should be projected to enable fundraising activities to proceed. Experience to date in North America suggests that collection program costs of between \$5,000 – \$7,000 per depot per day can be expected. Economies of scale can be realized in multi-depot programs because program promotion and other costs can be common to all depots.

As fund-raising can take time, the earlier funds are committed, the better. In approaching prospective sponsors, as many program details as possible should be outlined.

2.7 Step 7: "Obtain Regulatory Approvals"

Objective: To Make Sure Your Program Meets Regulatory and Other Requirements

A Certificate of Approval (C.of A.), issued by the Ontario Ministry of the Environment is required to operate the depot(s). Details of the proposed depot(s) must be submitted to the local Ministry of the Environment office. The Ministry will review the proposal and will issue a C. of A. if it is satisfied that the depot(s) will not cause environmental or other problems. The application for a C. of A. may take two months to process. In addition, as outlined in Step 5, the waste management company must be fully qualified and licenced to undertake the work required. Appendix B provides a more detailed treatment of the regulatory process.

2.8 Step 8: "Publicize The HHW Collection Program"

Objective: To Ensure That The Community Is Made Aware of HHW Issues And How It Can Participate In The HHW Collection Program

Publicizing a HHW collection program involves both long range public education and promotion. Public education is discussed in Section 3.

Thorough and effective program promotion is essential to ensure a successful HHW collection program. Promotion should address both the broader issue of why household hazardous wastes are a problem as well as cover specific details surrounding the event itself.

The broader education message should list which generic consumer products can be hazardous if disposed of improperly. There are often alternate, less toxic products that may be substituted — this is an opportune time to mention them.

Specific program information is required to provide all the pertinent details residents will need in order to participate. The following information

is essential: date of the collection, hours the depot is open, exact depot location (if not well known, provide a map), who, if anyone, is eligible for door-to-door pick-up service, a list of eligible materials, which agency is sponsoring the event and a contact name and phone number for further information. It is also important to include information stating any restricted materials (for example, explosives) and correct handling procedures. Stress that HHW **MUST NOT** be mixed, and should be kept in original containers for ease of identification.

How To Promote the Event

There are a number of promotional techniques available. The more that are taken advantage of, the more people will be reached and the better the chances of success.

The news media are often the best promotional tools. They reach the widest audience and can provide detailed promotion for a HHW collection program. HHW collections are extremely newsworthy — the concept of residents having hazardous waste in their homes quickly captures attention.

The media can provide coverage for the event in any of three different ways: as a news item, as a public service announcement, or in paid advertising. Promotional efforts should focus on capturing news attention. It is free and has a high degree of public credibility. It may also require the most effort.

Concentrate on the local media (e.g. community newspapers, daily papers, radio and T.V. stations). A **news package** can be provided and should include:

- a covering letter, ideally signed by the Mayor or other public official
- a fact sheet to provide a brief background to the issue, with details such as a definition of HHW.
- a news release listing the specific details of the HHW event (see Appendix D for a sample)

a public service announcement (PSA) -- most radio and T.V. stations require a specific number of seconds, so include two or three PSA's of varying lengths so they can select the appropriate one (see Appendix E for samples)

Another way to capture the attention of the media is to hold a **news conference** to announce the upcoming HHW collection. It provides the media with a tangible news story of significant local interest.

Because the media have demanding schedules, it is helpful to create an interesting, colourful news conference which will capture reader or listener attention. Endorsement of an HHW collection program by the Mayor or other high-profile civic official will likely catch media interest and add a sense of official sanction to the event.

Many newspapers and radio stations also run a weekly or monthly **upcoming events calendar**. Contact the editor one month in advance to ensure the event is included.

Advertising, though costly, is effective. For newspapers, ask which days of the week have the highest readership. Also, make sure any advertisement has a "clip and save" format so readers can keep it as a reminder. Given the goodwill nature of the event, it might be possible to convince the media to support an HHW collection by donating some air time or space for each advertisement purchased.

Word of mouth channels take advantage of the number of local organizations who have an established network in the community. Service clubs, environmental groups, community groups and other relevant clubs should be contacted and informed about the upcoming event. Similarly, local church offices should be contacted as they may be willing to include a notice in the church bulletin.

Notices to schools can alert students and teachers to the hazards of many household products, and announce the upcoming HHW collection. Health or fire departments may already make relevant presentations about poison control and it may be suitable to combine the two messages.

Posters are useful in advertising the HHW collection. They can be placed in schools, banks, libraries, grocery stores, churches and community centres. Local youth clubs, for instance,

the Scouts or Guides, may be willing to help with poster distribution. An official letter from the Mayor may elicit merchant cooperation.

Brief, informative **flyers** included in hydro or water bills are an inexpensive way to reach most residents. Often billings are mailed out over a one or two month period, so allow ample lead time. Also, in some communities there is a waiting list to use this mailing privilege, so contact the agency as early as possible.

Promotion Timing Schedule

The suggested timetable below illustrates when various facets of the promotion should be launched in ideal circumstances. This timetable assumes at least a three month lead time. If this is not available, activities should be adjusted as necessary.

Three Months Before Collection Date

Check required timing for utility bill inserts.

Six Weeks Before Collection Date

Send announcement to church bulletins. Send letter to service clubs and other organizations to request promotion support. Schedule assemblies with school principals.

One Month Before Collection Date

Contact media and distribute press package. Place posters in local businesses and public buildings. Distribute notice regarding press conference.

Three Weeks Before Collection Date

Send notice to local newspaper to be included in the community events column.

Two Weeks Before Collection Date

Hold press conference.
Distribute press releases.

2.9 Step 9: "The HHW Collection Day"

Objective: To Operate An Efficient, Effective And Safe HHW Collection Depot.

The following sections outline specific details that may be required at the HHW depot site(s). Evaluate needs well ahead of the collection day to allow enough preparation time.

Materials

Use the following sample checklist to make sure the materials needed are on hand. Some materials will probably be provided by the waste handler – double check to make sure.

- signs: EXIT, ENTRY, NO SMOKING plus stakes or tape to secure them in place. Signs should also be placed to direct people from the road. Balloons or banners are a highly visible way to draw attention to the depot.
- traffic cones to direct traffic
- sorting tables for incoming material
- chairs
- tarp, in case of rain, for the area where residents leave their HHW and the area where the wastes are packed
- a garbage bin for non-hazardous garbage
- first aid kit
- fire extinguishers
- plastic ground tarp for handling area to contain material in the event of a spill

Safety Consideration

The police, the fire department and the Ministry of the Environment should be informed about the collection. They should be on call on the day of the event in case of accidental spill or traffic problems. In the past, some communities have had a police officer and a fire truck at the site for the day as an added precaution.

It is advisable to survey the area at the end of the day to ensure that no materials were left behind. If a HHW collection is spread over several days, for example, if it is held for 2 days over the weekend, it may be necessary to provide overnight security.

2.10 Step 10: "Analyse Results"

Objective: To Begin Planning For Future HHW Collections.

A questionnaire to gather data on participation will provide useful information for planning similar events in the future and to evaluate this program's success. Most people will be cooperative in responding if the questionnaire is short and questions are relevant. Points that might be included are:

- how participants heard about the program
- where they live/how far they had to travel
- approximately how much material they brought in; why they brought it in; and will they purchase similar materials in the future
- whether they would pay a nominal user fee to help support similar ventures in the future.

A sample questionnaire is shown in Appendix F.

3. On-Going Municipal Roles

While household hazardous waste collections are an excellent way to rid our communities of some unwanted, potentially hazardous products, communities will continue to be faced with the problem of a growing range of consumer wastes that are potentially hazardous if not disposed of safely. It is therefore important that municipalities address the issue of proper HHW management on an on-going basis. There are at least three possible paths municipalities, or other organizations, can take to ensure good HHW management.

3.1 Public Education

There is a clear need for on-going public education about the hazards of many consumer products. Most people are not aware that many of their household products can be dangerous to both public health and the environment when disposed of with regular garbage or down the drain.

Experience has found a high level of support for HHW collections once the public is alerted to HHW problems, indicating that people are concerned by the threat of HHW to the quality of their environment.

Information on HHW can be written up as a fact sheet and distributed to residents with other municipal mailings, as handouts in libraries and other public buildings and to new residents in welcome wagon packages. Similar information can be included with any formal municipal communication to residents regarding garbage disposal. Often, communities will distribute a garbage collection calendar at the beginning of each year to inform residents about their collection day and outline brush collection, recycling and any other special procedures. This is a logical opportunity to inform residents about HHW issues and, where available, the opportunities that are offered for the safe collection and disposal of HHW.

3.2 Establish A Permanent HHW Collection Site

Some communities have established a permanent facility to collect household hazardous wastes on an on-going basis. For example, the Region of Waterloo has established a HHW collection depot at the landfill site (for HHW collection only, not disposal) which is open for residents to use on Saturdays during the summer. The City of Seattle provides six HHW drop-off points in various health department office buildings. The depots are open Monday to Friday during office hours. A staff person is trained to handle incoming material, which is stored in an isolated, non-public area.

3.3 Community Waste Exchange

Communities that want to take a more active role can initiate a community waste exchange to channel waste materials to people who can either make use of them or recycle them. Since this reduces the amount of waste, promoting the exchange or recycling of products that can become HHW should be considered.

A community waste exchange can either handle a number of different materials or only one, such as paint. How much waste it can divert will depend largely on local opportunities. The recycling potential for the exchanges should not be overlooked. Local industries can be surveyed to determine which, if any, are able to recycle wastes. Community groups and others may be able to use some materials, such as paints. Used motor oil can be recycled through local service stations.

Waste exchange programs should be widely advertised. Municipal departments should be well versed in the exchange, especially public works and the switchboard staff who may already be handling relevant inquiries.

Selected Information Resources

Publications

There are several useful publications available for more information on HHW issues and management. The following is a partial listing of them.

Everybody's Backyard — Household Hazardous Waste Kit produced by the State of Connecticut, Department of Environmental Protection. Contact: Leslie Lewis, Department of Environmental Protection, 165 Capitol Avenue, Hartford, CT 06106. Phone (203) 566-5599.

Household Hazardous Waste Collection Information Kit - produced by the League of Women Voters of Massachusetts. Contact the League of Women Voters of Massachusetts, 8 Winter Street, Boston, MA 02108. Phone: (617) 357-8380. Price: \$15 U.S.

The League has also produced a slide and video tape show which illustrates the nature of the problem, and describes the experiences of

a number of Massachusetts and Florida communities. It is a useful resource for sparking interest, discussions and action — suitable for citizen groups, civic organizations and public officials. The cost is \$14 U.S., available at the above address.

Household Hazardous Waste; Solving the Disposal Dilemma available from the Golden Empire Health Planning Centre. 2100 21st Street, Sacramento, CA 95818 (916) 731-5050. Price \$15 U.S.

The World is Full of Toxic Waste: Your Home Shouldn't Be. Final Report available from the Environmental Health Coalition. P.O. Box 8426, San Diego, CA 92102 (619) 235-0281. Price \$7.50 U.S.

Seattle, Washington, has prepared a series of reports related to toxic substances including HHW. Contact: David Galvin, Municipality of Metropolitan Seattle, Exchange Building, 821 Second Avenue, Seattle, WA 98104. Phone (206) 447-5875.

Appendix A

HOW IS HOUSEHOLD HAZARDOUS WASTE FINALLY DISPOSED OF?

Wastes that are collected for environmentally safe disposal are treated in a variety of ways, depending on the type of waste:

Recovery or Recycling

Some wastes can be recovered for recycling. Automobile batteries, acids, caustics and solvents can all be recycled as long as industry capability is available.

Detoxification

Some hazardous wastes can be converted to less hazardous or non-hazardous waste. High

temperature incineration is one common treatment method. Some pesticides, paints, solvents, petroleum products, wood preservatives and organic pharmaceuticals can be treated this way.

Secure Landfill

For some wastes this is the only available method of disposal. Contaminated metal containers and inorganic chemical solids generally must be landfilled.

Appendix B

REGULATORY REQUIREMENTS

This Appendix provides details of the regulations relating to HHW collections.

Siting a Depot

A municipality must obtain a Ministry of the Environment Certificate of Approval for a Waste Disposal (Transfer) Site. Applications for certificates are available at any local MOE office. The application requires a number of details such as:

- date of event
- hours of operation
- exact location
- map indicating proposed traffic flow patterns
- types of wastes to be collected
- explanation of how the wastes will be handled
- contingency plan in case of accident

In completing the application, a municipality will need to confer with both the waste handling company and Ministry staff.

A public hearing can be required to establish a HHW collection depot. However, a hearing is unlikely to be required if the depot selection has been made in consultation with the Ministry of the Environment and the municipality to ensure that the depot does not pose environmental or other problems. Potential zoning conflicts can be overcome by the issuing of a temporary permit to site the depot.

Handling The Wastes At The Site

The firm handling or processing the materials at the depot must be licenced by the Ministry of the Environment.

In Ontario the Ministry of Transportation and Communications' Dangerous Goods Transportation Act, 1981, governs how hazardous materials must be labelled, packed and transported. Proper signage, labelling and coding procedures must be followed. This Act does not govern the transportation of wastes from households, which are specifically exempted from the regulations.

Both the Ministry of the Environment and Transport Canada require a manifest form to trace hazardous wastes from the generator to final disposal. If all shipments are within Ontario, only the Ministry of the Environment form needs to be completed. The municipality must prepare the manifest form listing the types of materials, volumes, destination and other characteristics of the consignment. The carrier verifies the shipment and the recipient certifies all goods listed were received for disposal. Copies of the form must be sent to the central Ministry of the Environment offices in Toronto.

If the wastes are to be transported inter-provincially, a Transport Canada manifest form must be completed and submitted to the provincial Ministry of the Environment office of both the shipping and receiving provinces.

Appendix C

EXAMPLE OF PROMOTIONAL MATERIALS

The World Is Full of Toxic Waste.

Your Home Shouldn't Be.

You Probably Have Toxic Products In Your Home.

Toxic products in your home can endanger your family's health. If misused they can poison you, burn your skin and eyes, and cause allergies and respiratory problems. Children are the most frequent victims of home accidents involving toxics. Toxic products that may be in your home include FLEA POWDERS, GARDEN INSECTICIDES, OIL BASE PAINTS, THINNERS and SOLVENTS, ANTIFREEZE, USED MOTOR OIL, BRAKE FLUID, and some household cleaners such as DRAIN OPENERS, TOILET BOWL CLEANERS, OVEN CLEANERS, and FURNITURE POLISHES.

Toxic Products Become Toxic Wastes

When you want to dispose of these products, they become toxic wastes. They can harm sanitation workers and pollute the environment if disposed of improperly. Many waste products should not go down the drain or in the trash, but until now there has been no safe way to dispose of them.

We're Working On a Solution

The Environmental Health Coalition has developed a Household Toxics Disposal Project to help solve this problem. If you live in one of these neighborhoods, we will come to your home by appointment to pick up your toxic wastes and dispose of them safely.

To make an appointment to have your toxics picked up, you must call at least 10 days prior to pick-up day. For more information call the Environmental Health Coalition at 235-0281. For those who cannot participate on the pick-up day for your area there is an alternative available.

Free Toxics Collection Services

The Appropriate Technology II, a hazardous waste transfer, storage, and disposal facility in South Bay, will accept your household toxic wastes for free on the following Saturdays: June 16, June 23, June 30, and July 7. Appropriate Technology II is located at 1700 Maxwell Road, right off Otay Valley Road in Chula Vista.

Certain restrictions apply. Call the Environmental Health Coalition for packaging and transportation guidelines prior to taking materials for disposal. CAUTION SHOULD ALWAYS BE USED WHEN HANDLING THESE PRODUCTS.

The Environmental Health Coalition — 235-0281

The Environmental Health Coalition Household Toxics Disposal Project is funded in part by the City of San Diego and the County of San Diego.



If you live in these neighborhoods, we will pick up your household toxic wastes on these Saturdays:

Zip Code	Location	Date
92109	Pacific Beach	May 5
92126	Mira Mesa	May 19
92103	North Park	May 26
	Hillcrest	
	Mission Hills	
92128	Rancho Bernardo	June 2
92102	Southeast San Diego	June 9
	Golden Hill	
92124	Tierrasanta	June 16
	Murphy Canyon	
92067	Rancho Santa Fe	June 23
92077	Spring Valley	June 30



The County of San Diego Department of Health Services reminds you that smoking is also hazardous to your health.

Appendix D

SAMPLE NEWS RELEASE

GOOD RIDDANCE TO BAD RUBBISH

Free collection sites for unwanted household toxics — for example, pesticides, pool acids, paint products, hobby supplies, etc. — will be available on June 2nd and 9th at 21st and W Streets under the freeway and on June 16th and 23rd at El Camino High School, El Camino and Eastern Avenues. Both sites will be open from 9:00 a.m. — 1:00 p.m. and will be staffed by hazardous waste professionals who will accept waste from households, package it safely, and transport it to an appropriate hazardous waste disposal facility. A kick-off event with guest speakers and free educational materials is scheduled on June 2nd at the 21st and W Streets site.

Now is the time for Sacramento residents to say good-bye to those old products containing toxic chemicals that have been accumulating over the years on garage shelves, in storage sheds or under kitchen sinks.

Generally, disposal of such products have occurred by dumping them in the trash, pouring them down the drain, or burying them in the yard. Such practices are considered unsafe and can contribute to environmental damage. In addition, refuse workers have been injured when picking up trash containing toxic chemicals.

Authorities believe that the future effects caused by chemicals accumulating at municipal landfills cannot be predicted. "Sacramento County is pursuing a preventive approach", says County Supervisor Ted Sheedy. "Better to be safe now, than sorry later," he continues.

Area residents wanting information on the safe use and disposal of consumer products containing toxic chemicals can come to the June 2nd kick-off event of the collection site service. Held at the 21st and W Street site, the program will be presented from 10:00 a.m. — 11:30 a.m. and will begin with a presentation on the use of safer alternatives to some consumer products containing toxic chemicals. The presentation will be made by Debra Lynn Dadd, who authored "A Consumer Guide for the Chemically Sensitive".

Additional speakers will include Judy Alsop, Coordinator of the UC Davis Regional Poison Control Center, Janis Heple co-chair of the Sacramento Toxics Alliance, and Bob Shireman of the California Public Interest Research Group. Additional topics for discussion will include labeling of consumer products. Free informational materials will be available.

For further information on the event or the collection site service, including tips on how to safely package your waste for transport to the collection site, call Sacramento County Environmental Health Department at 366-2109.

This community service is being sponsored through a cooperative effort of Sacramento County, Sacramento City, various fire departments, Golden Empire Health Planning Center and American Environmental Management Corporation, a local hazardous waste transfer station and hauling firm.

(Courtesy of Golden Empire Health Planning Center, Sacramento).

Appendix E

SAMPLE PUBLIC SERVICE ANNOUNCEMENTS

**PUBLIC SERVICE ANNOUNCEMENT
10 SECONDS**

NOW IS THE TIME TO RID YOUR HOME OF HOUSEHOLD PRODUCTS CONTAINING TOXIC CHEMICALS. A FREE COLLECTION SITE SERVICE WILL BE AVAILABLE ON FOUR SATURDAYS IN JUNE. FOR FURTHER INFORMATION, CALL SACRAMENTO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT, 366-2109.

**PUBLIC SERVICE ANNOUNCEMENT
20 SECONDS**

NOW IS THE TIME TO RID YOUR HOME OF HOUSEHOLD PRODUCTS CONTAINING TOXIC CHEMICALS. PESTICIDES, POOL ACIDS, PAINT PRODUCTS, ETC. WILL BE ACCEPTED FROM 9 AM – 1 PM AT THE FOLLOWING LOCATIONS: JUNE 2ND AND 9TH – 21ST AND W STREETS, UNDER THE FREEWAY, JUNE 16TH AND 23RD – EL CAMINO HIGH SCHOOL, EL CAMINO AND EASTERN AVENUES.

HELP KEEP YOUR ENVIRONMENT SAFE! USE THIS **FREE** COLLECTION SITE SERVICE. FOR FURTHER INFORMATION, CALL 366-2109, SACRAMENTO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT.

**PUBLIC SERVICE ANNOUNCEMENT
30 SECONDS**

GOOD RIDDANCE TO BAD RUBBISH! NOW YOU HAVE A CHANCE TO RID YOUR HOME OF OLD PESTICIDES, PAINT PRODUCTS, POOL CHEMICALS, HOBBY SUPPLIES, AND SO ON. FOR A LIMITED TIME, HOUSEHOLD PRODUCTS CONTAINING TOXIC CHEMICALS WILL BE ACCEPTED, FREE OF CHARGE, FROM 9 AM UNTIL 1 PM AT THE FOLLOWING LOCATIONS: JUNE 2ND AND 9TH – 21ST AND W STREETS, UNDER THE FREEWAY; JUNE 16TH AND 23RD – EL CAMINO HIGH SCHOOL, EL CAMINO AND EASTERN AVENUES.

RID YOUR HOME OF TOXIC TRASH! USE THE FREE COLLECTION SITE SERVICE. FOR FURTHER INFORMATION, CALL 366-2109, SACRAMENTO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT.

(Courtesy of Golden Empire Health Planning Centre, Sacramento)

Appendix F

SAMPLE QUESTIONNAIRE

QUESTIONNAIRE

1. How did you hear about this Pilot Project?
 - (a) Utilities bill insert
 - (b) Palo Alto Weekly
 - (c) Peninsula Times Tribune
 - (d) Flyer / Poster
 - (e) Word of mouth
2. How many households are represented by your delivery of household hazardous materials?
 - (a) One
 - (b) Two
 - (c) Three
 - (d) More than three
3. Did you know what a household hazardous material was before this Pilot Project?
Yes ☐ No ☐
4. How have you disposed of household hazardous material in the past?
 - (a) Garbage
 - (b) Burial underground
 - (c) Dump
 - (d) Other
5. Did you know before this project that it was not a safe practice to dispose of household hazardous materials in the garbage?
Yes ☐ No ☐
6. Do you feel this is a worthwhile service for the community?
Yes ☐ No ☐
Why? _____

7. How often do you think this service should be available?
 - (a) Weekly
 - (b) Monthly
 - (c) Bi-annually
 - (d) Annually

(Courtesy of City of Palo Alto)

Appendix G

LIST OF ALTERNATIVE PRODUCTS

These alternative products may not necessarily be effective and are not endorsed by the Ontario Ministry of the Environment.



Toxic chemicals in my home? You Bet!

(How to reduce chemical hazards in the home)

Many home and garden products contain potentially dangerous chemicals. If not used and disposed safely, they may cause injury to living things and damage the environment.

Some chemicals found in consumer products may contribute to allergic reactions, headaches, burns, nausea, coughs, and dizziness. Others are associated with more severe effects such as liver/kidney damage, cancer, and birth defects.

Improperly disposed, products containing hazardous materials can injure refuse workers and contaminate water supplies.

An increasing number of people are expressing an interest in switching to less toxic substitutes for toxic consumer products. Switching to less toxic substitutes will reduce the amount of hazardous waste needing to be disposed, reduce toxic exposure to workers involved in the manufacture and disposal of the products, and encourage manufacturers to provide effective non-toxic or less-toxic products.

Rules of thumb for reducing exposure

Recognizing that most individuals will continue to use some home and garden products containing toxic chemicals, the following suggestions are provided to limit exposure and reduce the potential for accidents.

Keep products in their original containers — Over the years, some manufacturers have altered the ingredients. In the event of a poisoning the product label can give a clue to the product's age and contents. Never place toxics in containers associated with food or drink.

Use products in well ventilated areas — Avoid breathing the fumes. One open window is not considered adequate ventilation. Use an exhaust fan and make sure the air is escaping outside and is not recirculating indoors. Take "fresh air" breaks.

Avoid use of aerosols when possible — Breathing the fine mist can cause it to settle deep in the lungs and be quickly absorbed in the bloodstream. Aerosol cans have an explosive quality and should never be placed in sunlight, near a stove, in a glove compartment, or in a fire.

Keep products out of reach of children or pets — Most accidents occur when a product is left unattended. Keep all toxics in locked cabinets or on high shelves.

Wear protective clothing — This prevents chemicals from entering the bloodstream through skin absorption. It is best not to wear soft contact lenses when working around solvents as the fumes can become trapped between the lens and the eye.

Never mix products — Some products contain toxic chemicals that create intense heat and/or toxic fumes when mixed with other products. A common example involves the mixing of chlorine bleach with ammonia. Together they emit toxic chloramine fumes. Never mix different brands of the same product. Each brand may have different ingredients.

Choose products in child resistant caps — Following the introduction of child resistant caps in 1972, the number of children's deaths involving aspirin products alone declined 43.5 percent the first year.

Use only the recommended amount — Twice as much does not mean twice as effective and can cause more harm than good.

If pregnant, avoid toxic chemical exposure as much as possible — Many chemicals in household products have not been tested for their effect on unborn children.

Buy only what you need — Some products require using only small amounts to achieve effectiveness. Buying the "economy size" may leave you with unwanted portions.

Beware of product antidotes — Some products (especially older products) may give first aid advice that is potentially harmful. Salt antidotes are especially troublesome. Always call a medical professional or the Poison Control Center for advice in a poisoning.

Use safer substitutes

Ant control — Pour a line of cream of tartar at the place where they enter the house. The ants will not cross over it. / Sprinkle red chili pepper, paprika and/or dried peppermint where the ants are entering the house.

Air freshener — Leave opened box of baking soda in room. / Add cloves and cinnamon to boiling water and then let simmer.

Chemical fertilizer — Compost.

Cleanser (porcelain cleansers) — Dip damp cloth in baking soda and rub over stains. You can also make a paste with water and apply it to especially stained surfaces. Allow to set before rubbing clean and rinsing.

Copper cleaner — Pour vinegar and salt over copper and rub.

Drain opener — Prevent clogging by using a drain strainer. / Use plunger or mechanical snake. / Pour 1/2 cup washing soda into the drain followed by 2 cups of boiling water. / Flush drain weekly with boiling water for prevention.

Flea and tick repellent — Feed pets brewer's yeast, vitamin B and garlic tablets. / Herbs such as fennel, rue and rosemary repel fleas. / Place eucalyptus seeds and leaves around the area where the animal sleeps.

General cleaner — Mix baking soda with water. / Mix 3 tablespoons of washing soda with one quart warm water.

Insect spray — Blend 6 cloves of crushed garlic, 1 onion (minced), 1 tablespoon dried hot pepper and 1 teaspoon pure soap in 4 quarts of hot water. Let sit 1-2 days. Strain before using. / Place 1 cigarette in 1 quart of water overnight. Strain and spray.

Laundry detergent — Use washing soda or soap in place of detergent. / Make a paste of washing soda and water for dirty spots.

Linoleum floor cleaner/wax — Mop with 1 cup white vinegar mixed with 2 gallons of water to remove dull, greasy film. / Polish with club soda.

Mothballs — Place cedar chips around clothes. / Dried lavender can be made into sachets and placed in drawers and closets.

Oven cleaner — Sprinkle salt on spills when they are warm and scrub. / Mix 3 tablespoons washing soda with one quart warm water. / Use oven liners (trays) to catch spills. / Rub gently with steel wool.

Roaches — Set out a dish of equal parts baking soda and powdered sugar. / Set out a dish of equal parts oatmeal flour and plaster of paris. / Put some grease or vaseline on the inside of a jar that contains a banana. Set a tongue depressor near the jar to serve as a ramp. The cockroaches will be trapped inside the jar. / Place bay leaves around cracks in the room.

Snail and slug killer — Fill a shallow pan with stale beer and place in the infested area. / Overturn clay pots and the snails will seek shelter in them from the heat. The snails can then be collected. / Lay boards between rows of planted vegetables. The snails often attach themselves to the boards.

Upholstery cleaner — Clean stains immediately with club soda. Will remove spots on rugs and upholstery.

Window cleaner — Mix 1/2 cup white vinegar with one gallon warm water. / Use newspapers to dry the glass. / Use straight lemon juice and dry with a soft cloth.

Wood floor wax/cleaner — Mix half oil and vinegar solution. Apply in a thin coat and rub in well. / Painted wooden floors can be washed with 1 teaspoon washing soda and 1 gallon hot water. Rinse with clear water.

For the next three Saturdays, you can take hazardous products commonly found around your home, garage or tool shed to special collection points. For information on the free program — and more tips on how to keep your home and family safe from these products — see the related article on page CL 4.

Appendix H

LIST OF ONTARIO MINISTRY OF THE ENVIRONMENT REGIONAL OFFICES

LONDON

985 Adelaide Street South
London, Ontario
N6E 1V3
(519) 681-3600

HAMILTON

119 King Street West
12th Floor
P.O. Box 2112
Hamilton, Ontario
L8N 3Z9
(416) 521-7640

TORONTO

7 Overlea Blvd.
4th Floor
Toronto, Ontario
M4H 1A8
(416) 424-3000

KINGSTON

133 Dalton Street
P.O. Box 820
Kingston, Ontario
K7L 4X6
(613) 549-4000

SUDBURY

199 Larch Street
Sudbury, Ontario
P3E 5P9
(705) 675-4501

THUNDER BAY

Box 5000
435 James Street South
Thunder Bay, Ontario
P7C 5G6
(807) 475-1205

Appendix I

FEEDBACK QUESTIONNAIRE

FEEDBACK QUESTIONNAIRE

To keep us up-to-date, we would like to assemble a directory of all HHW activities that occur in Ontario. These collective experiences will serve as an invaluable resource for all municipalities in future program planning.

If your municipality undertakes a HHW program, please take a moment and complete the following questionnaire and return it to:

Ministry of the Environment
Waste Management Branch
Suite 100
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5

-
1. Municipality: _____
 2. Contact Person: _____
Phone Number: _____
 3. Date of HHW collection: _____
 4. Type of collection:
☐ Depot: How many: _____
Location(s): _____
and/or
☐ Curbside
 5. Approx. number of participants: _____
 6. Approx. volume of material collected: _____
 7. Major types of waste(s) collected: _____
 8. Approx. cost of project: _____
 9. Approx. cost of disposal only: _____
 10. Type of promotion used: _____
 11. Number of staff at the site: _____
Was this too few _____
too many _____
just right _____
 12. Were there any problems? If so, please describe _____
 13. Are further programs planned? _____
 14. Additional comments that would be useful to other program organizers?

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Guide to implementing
household hazardous waste
collection programs.
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